

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**RECEIVED**
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In re Application of:)

Sameer S. Marathe)

Application No.: 10/670,857)

Filed: September 25, 2003)

For: Apparatus and Method for Monitoring)
Braking System Pressure)

Attorney Docket No.: 03-106)

Art Unit: 3683

Examiner: Christopher Schwartz

Peoria, Illinois
January 10, 2006**JAN 10 2006**Mail Stop AF
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450**PRE-APPEAL BRIEF REQUEST FOR REVIEW****I. INTRODUCTION**

An Office action was issued on October 27, 2005 ("the Office action"). This application has been rejected more than twice. In accordance with the practice outlined in the Official Gazette notice of July 12, 2005, applicant submits the following request for reviewing the application at a pre-appeal brief conference.

II. REASONS FOR THIS REQUEST**A. Brief Summary of the Status of the Pending Claims**

When the Office action was issued, claims 1, 10, 15-24, and 28-34 were pending in the application. The Office action rejected each of claims 1, 10, 15-24, and 28-34. Claims 1, 10, 15-24, and 28-34 remain pending in the application and have not been amended since the Office action.

B. Traversal of the Rejection of Claims 1, 15, and 16

The Office action rejected claim 1 for allegedly being obvious in view of U.S. Patent No. 6,132,012 to Ishii ("the Ishii patent"), U.S. Patent No. 6,494,545 to Nakamura et

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al. ("the Nakamura patent"), and U.S. Patent No. 6,679,564 to Nitta et al. ("the Nitta patent").

The rejection of claim 1 was incorrect for at least the following reasons.

Claim 1 recites "a pressure detection device which measures the pressure of the hydraulic fluid in a gas accumulator" and produces an output signal, and a "monitoring device which receives the output signal" and uses it "to determine the pre-charge pressure of the gas in the gas accumulator."

As best understood, the interpretation that is given in the Office action of these limitations in claim 1 is clearly erroneous.

First, the Office action states that "to determine the 'pre-charge' pressure of the gas in the gas (chamber) of the accumulator" means "simply using the measurement of hydraulic fluid pressure in the accumulator to determine the pressure in the gas chamber." Office action, page 3. This interpretation completely fails to give weight to the recited limitation of "the pre-charge pressure of the gas in the gas accumulator." For a gas-type accumulator, this is not the pressure of the gas at any state of the accumulator. Rather, as is known and well understood in this art, this is the pressure of the gas at a specific state, *i.e.* when the hydraulic fluid pressure is zero and the volume of the gas chamber is at its greatest. *See generally* paragraph 3 of the present specification. Technicians in this art rely upon this measurement of the pre-charge gas pressure to determine whether the proper quantity of gas is present in the gas accumulator. To say that this limitation includes finding *any* pressure of the gas in the accumulator at *any* time or stage of operation is incorrect. Rather, as recited, this limitation requires finding the "pre-charge pressure of the gas."

Second, the Office action states "[i]t is also noted that at page 4 of applicant's disclosure that the pressure detection device may be coupled to either the gas or hydraulic chambers of the accumulator. Therefore there is no specific requirement that the pressure of the hydraulic fluid in the accumulator must be measured to produce the claimed output signal

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to determine the 'pre-charge' gas pressure." Office action, page 4. While the applicant explains alternative embodiments of the invention on page 4 of the instant specification, claim 1 specifically recites measuring the hydraulic pressure, and using that to determine the pre-charge pressure of the gas. Therefore, measuring the gas pressure is not the same as measuring the hydraulic pressure when interpreting claim 1, because claim 1 specifically recites measuring the hydraulic pressure. To read the limitation of measuring the hydraulic pressure out of claim 1 is clear legal error.

Given the correct interpretation of these limitations, they are not disclosed or suggested by the combination of prior art references used in the rejection.

The Office action concedes that Ishii does not "measure[e] the pressure of the hydraulic fluid and us[e] this measured pressure value to determine the 'pre-charge' pressure of the gas in the gas (chamber) of the accumulator." Office action, page 3. But the Office action does not explain which one of the Nakamura patent and the Nitta patent provides this teaching. With respect to the Nitta patent, the Office action only relies on it for "the notoriously well known idea of using target or predetermined levels." Office action, page 3. So the Nitta patent is not relied upon to provide this teaching. Likewise, with respect to the Nakamura patent, the Office action only relies on it for the "idea of using either the hydraulic pressure or the gas pressure in the accumulator to determine the working status of the accumulator." Office action, page 3-4. This statement does not explain where the missing teaching of using the hydraulic pressure to determine the "pre-charge pressure of the gas" is found in Nakamura. Determining "the working status of the accumulator," Office action, page 3, does not disclose or suggest "determin[ing] the pre-charge pressure of the gas in the gas accumulator," claim 1. So the Nakamura patent also does not provide this teaching. None of the prior art references relied upon for this rejection teaches using a *hydraulic fluid pressure* to find this *pre-charge pressure of the gas* in the gas accumulator. Accordingly, the

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rejection is in error because it does not explain where these limitations of claim 1 are found in the combination of prior art references.

For at least these reasons of i) the limitations of claim 1 being clearly improperly interpreted and ii) the references not disclosing or suggesting each limitation of claim 1, the rejection of claim 1 was incorrect. Claims 15 and 16 depend from claim 1 and their rejection was incorrect for at least the same reasons.

C. Traversal of the Rejection of Claims 10 and 17-20

For the purposes of this Request, the arguments for claim 1 above also generally apply to claim 10. The rejection of claim 10, and its dependent claims 17-20, was incorrect because i) the limitations of claim 10 have been clearly improperly interpreted and ii) the references do not teach each limitation of claim 10.

D. Traversal of the Rejection of Claims 21-24, 28, and 29

The Office action rejected claim 21 for allegedly being obvious in view of the Ishii patent, the Nakamura patent, and the Nitta patent. The rejection of claim 21 was incorrect for at least the following reasons.

Claim 21 defines a "first pressure" by reciting "at least a first chamber for hydraulic fluid which has a first minimum volume when the hydraulic fluid is less than a first pressure, and which expands to a volume greater than the first minimum volume only after the hydraulic fluid is greater than the first pressure." In other words, as the pressure of the hydraulic fluid increases, the volume of the first chamber will not increase until the pressure reaches and exceeds the "first pressure." Claim 21 also recites a monitoring device that identifies an estimate of the "first pressure."

The Office action fails to identify where in any of the combination of references used for this rejection the first pressure is estimated by a monitoring device. With respect to claim 21, the Office action merely states "these requirements are met by the

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combined teachings.” Office action, page 4. Applicant asserts that none of the prior art references used in this rejection discloses or suggests identifying the recited “first pressure.” In addition, without a reasonably complete analysis and explanation of this rejection in the Office action, applicant cannot effectively prepare an appeal brief to traverse this rejection.

For at least these reasons, the rejection of claim 21 was incorrect and should be withdrawn. Claims 22-24, 28, and 29 depend from claim 21 and their rejection was incorrect for at least the same reasons.

F. Traversal of the Rejection of Claims 30-34 Under 35 U.S.C. § 103(a)

For the purposes of this Request, the arguments for claim 21 above also generally apply to claim 30. The rejection of claim 30, and its dependent claims 31-34, was incorrect because the Office action does not provide a teaching or suggestion from the references of a monitoring device calculating a “first pressure.”

III. CONCLUSION

Any fees required for this reply, the above amendments, or any other fees necessary during the prosecution of this application now, or in the future, may be charged to the undersigned’s deposit account no. 03-1129.

If the conference of examiners reviewing this application has any questions regarding the application, the claims, or the arguments against the claim rejections, they are invited to telephone the undersigned representative.

Respectfully submitted,



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